

CLAIMS

What is claimed is:

1. A fixture for handling workpieces, comprising:
 - a base having a first set of platforms for supporting workpieces;
 - a body slidably mounted to and movable relative to the base, the body having a second set of platforms for supporting other ones of the workpieces; and
 - the fixture having a closed position such that the second set of platforms and all of the workpieces are interleaved and aligned with the first set of platforms, and an open position such that the second set of platforms and said other ones of the workpieces are further spaced apart from and misaligned with the first set of platforms and said workpieces.
2. The fixture of claim 1, wherein each of the platforms is a finger-like projection having a surface for supporting one of the workpieces.
3. The fixture of claim 1, wherein, when the platforms are interleaved, individual ones of the first set of platforms are located immediately adjacent to at least one of the platforms in the second set of platforms.
4. The fixture of claim 1, wherein, in the closed position, the platforms are spaced apart by a dimension of approximately 50 to 200 microns, and, in the open position, the first and second sets of platforms are spaced apart from each other by a dimension that is at least approximately 1700 microns, with adjacent ones of the first set of platforms and adjacent ones of the second set of platforms being separated by at least approximately 700 microns, respectively.
5. The fixture of claim 1, wherein, in the closed position, the first set of platforms are spaced apart from the second set of platforms by narrow slits.

6. The fixture of claim 1, wherein all of the platforms are co-planar in at least the closed position.

7. The fixture of claim 1, wherein all of the platforms are co-planar in both the open and closed positions.

8. A system for processing a workpiece, comprising:

a fixture having a base and a body movable relative to the base, the base having a first set of platforms and the body having a second set of platforms, the fixture also having a closed position such that the sets of platforms are aligned with each other, and an open position such that the sets of platforms are spaced further apart from and misaligned with each other;

a workpiece mounted to the fixture while the fixture is in the closed position such that the workpiece is processed while supported by platforms in both sets of platforms, including cutting the workpiece into pieces that remain mounted to respective ones of the platforms, and moving the fixture to the open position such that the pieces are spaced further apart from each other than when in the closed position; and

a tray having receptacles for receiving individual respective ones of the pieces, such that the pieces are automatically removed from the fixture and placed into the receptacles without manual handling of individual ones of the pieces.

9. The system of claim 8, wherein the platforms are interleaved with each other in the closed position, such that individual ones of the first set of platforms are located immediately adjacent to at least one of the platforms in the second set of platforms.

10. The system of claim 8, wherein the workpiece is an elongated slider row and the pieces are individual sliders.

11. The system of claim 8, wherein the workpiece is bonded to at least some of the platforms of both sets of the platforms while the fixture is in the closed position, and the pieces are debonded from said at least some of the platforms of both sets of the platforms while the fixture is in the open position.

12. The system of claim 8, wherein the fixture is inverted with the pieces attached to position the pieces in the receptacles, and the pieces are retained in the receptacles with the fixture while the pieces are being removed from the fixture.

13. The system of claim 8, wherein all of the platforms are co-planar in both the open and closed positions.

14. A method of handling a workpiece, comprising:
- (a) providing a workpiece having a first configuration;
 - (b) mounting the workpiece on a fixture;
 - (c) processing the workpiece while the workpiece is mounted to the fixture;
 - (d) cutting the workpiece into pieces that remain mounted to the fixture and in the first configuration;
 - (e) articulating the fixture such that the pieces are oriented in a second configuration;
 - (f) positioning the pieces in receptacles that are arranged in the second configuration;
- and then
- (g) dismounting the pieces from the fixture such that the pieces remain in the receptacles.
15. The method of claim 14, wherein step (a) comprises configuring the workpiece in an elongated row, and step (e) comprises rearranging the elongated row by spreading the pieces apart.
16. The method of claim 14, wherein step (b) comprises bonding the workpiece to the fixture.
17. The method of claim 14, wherein step (a) comprises providing the workpiece as a slider row, and step (d) comprises cutting the slider row into individual sliders.
18. The method of claim 14, wherein step (b) comprises mounting the workpiece to a plurality of aligned platforms, and step (e) comprises misaligning the platforms such that the pieces are further spaced apart from each other.
19. The method of claim 14, wherein step (f) comprises placing the pieces in an inspection tray.

20. The method of claim 14, wherein step (g) comprises debonding the pieces from the fixture.

21. The method of claim 14, further comprising inverting the fixture with the pieces attached in order to position the pieces in the receptacles, and retaining the pieces in the receptacles with the fixture while the pieces are being dismounted from the fixture.

22. The method of claim 14, wherein steps (e)-(g) comprise automatically transferring the pieces to the receptacles without manual handling.

23. The method of claim 14, wherein the pieces are co-planar in both the first and second configurations.